

Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Idaho Precision Machining	% Correct 16-17	% Correct 17-18	% Correct 18-19
Number tested: 11			
1) CONTENT STANDARD 1.0: PERFORM FUNDAMENTAL MACHINING SKILLS	66.67%	70.18%	66.23%
1) Performance Standard 1.1: Comply with safe and efficient work practices	80.56%	82.46%	81.82%
1.1.4 Operate lab equipment according to safety guidelines	75.00%	89.47%	90.91%
1.1.13 Identify and wear appropriate clothing for lab/shop activities.	100.00%	89.47%	100.00%
1.1.15 Locate and interpret material safety data sheets (MSDS).	66.67%	68.42%	54.55%
3) Performance Standard 1.3: Perform job related mathematical calculations	65.00%	63.16%	63.64%
1.3.1 Accurately perform job related decimal and fraction calculations.	100.00%	100.00%	90.91%
1.3.2 Solve job-related problems using basic geometry.	75.00%	73.68%	72.73%
1.3.3 Accurately measure a work piece and compare measurements with blueprint specifications.	91.67%	78.95%	72.73%
1.3.4 Calculate the amount of material to be removed to obtain correct limits for secondary operations	0.00%	5.26%	54.55%
1.3.6 Convert measurements from English to metric and from metric to English units.	58.33%	57.89%	27.27%
4) Performance Standard 1.4: Read, interpret and sketch blueprints	70.00%	66.32%	70.91%
1.4.1 Interpret line types	8.33%	10.53%	27.27%
1.4.2 Read and interpret title blocks	83.33%	52.63%	63.64%
1.4.4 Read and interpret nomenclature	83.33%	73.68%	81.82%
1.4.5 Make shop sketches	91.67%	94.74%	100.00%
1.4.6 Read and interpret blueprints, including geometric dimensioning and tolerancing	83.33%	100.00%	81.82%
5) Performance Standard 1.5: Demonstrate proficiency in machine planning	75.00%	81.58%	72.73%
1.5.1 Identify proper order of operations.	91.67%	94.74%	100.00%
1.5.4 Select proper tooling.	58.33%	68.42%	45.45%
6) Performance Standard 1.6: Perform measuring operations	55.56%	69.30%	54.55%
1.6.1 Read and measure with steel rules and calipers.	16.67%	42.11%	27.27%
1.6.2 Read and measure with micrometers.	83.33%	89.47%	81.82%
1.6.3 Read and measure with Vernier tools.	41.67%	63.16%	45.45%
1.6.4 Read and measure with dial indicators.	66.67%	94.74%	72.73%

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Number tested: 11	17	18	19
1.6.5 Measure using a surface plate.	41.67%	36.84%	18.18%
2) CONTENT STANDARD 2.0: PERFORM BENCH WORK SKILLS	65.74%	74.27%	76.22%
1) Performance Standard 2.1: Identify proper hand tools, usage, and application	91.67%	78.95%	100.00%
2.1.1 Use proper hammer types.	91.67%	78.95%	100.00%
7) Performance Standard 2.7: Deburr workpieces	56.25%	72.37%	68.18%
2.7.1 Select proper deburring tool.	50.00%	63.16%	54.55%
2.7.3 Demonstrate how to sharpen machinist scrapers.	50.00%	73.68%	72.73%
2.7.4 Deburr work pieces to required tolerances.	62.50%	76.32%	72.73%
8) Performance Standard 2.8: Use appropriate inspection gages	68.75%	75.00%	86.36%
3) CONTENT STANDARD 3.0: SETUP AND OPERATE POWER SAWS	41.67%	36.84%	72.73%
1) Performance Standard 3.1: Comply with safe and efficient work practices	41.67%	36.84%	72.73%
3.1.2 Identify hazardous components of saws.	41.67%	36.84%	72.73%
4) CONTENT STANDARD 4.0: SETUP AND OPERATE PEDESTAL GRINDERS	58.33%	94.74%	90.91%
1) Performance Standard 4.1: Comply with safe and efficient work practices	58.33%	94.74%	90.91%
4.1.1 Demonstrate the operation of pedestal grinders safety devices.	58.33%	94.74%	90.91%
5) CONTENT STANDARD 5.0: HAND-SHARPEN CUTTING TOOLS	50.00%	63.16%	90.91%
1) Performance Standard 5.1: Comply with safe and efficient work practices	50.00%	63.16%	90.91%
5.1.1 Demonstrate knowledge of safety by completing a written safety test.	50.00%	63.16%	90.91%
6) CONTENT STANDARD 6.0: SETUP AND OPERATE LATHES	79.33%	81.26%	79.27%
1) Performance Standard 6.1: Comply with safe and efficient work practices	83.33%	100.00%	100.00%
6.1.5 Explain the proper housekeeping and tool hazards	83.33%	100.00%	100.00%
4) Performance Standard 6.4: Secure tools, tool holders, and fixtures or attachments	80.56%	98.25%	93.94%
6.4.1 Describe the proper selection of tool holding devices.	91.67%	100.00%	100.00%
6.4.2 Describe the use of tool holders, fixtures and attachments.	66.67%	94.74%	90.91%
6.4.3 Describe the mounting of tool bits.	83.33%	100.00%	90.91%
5) Performance Standard 6.5: Select and set feeds and speeds	89.58%	88.16%	72.73%
6.5.1 Locate, speed and feed chart on each machine.	91.67%	94.74%	72.73%
6.5.2 List spindle speed formula and calculate appropriate RPM.	83.33%	68.42%	72.73%
6) Performance Standard 6.6: Setup lathes and face work pieces held in chucks	79.17%	88.16%	86.36%
6.6.2 Calculate cutting speeds and feeds for facing operations.	41.67%	63.16%	72.73%
6.6.3 Describe the procedures for facing.	91.67%	96.49%	90.91%
7) Performance Standard 6.7: Rough-cut and finish-cut with lathes	79.17%	86.84%	88.64%
6.7.1 Calculate the correct speeds and feeds for the appropriate operation.	79.17%	81.58%	86.36%
6.7.3 Define and make trial cuts.	58.33%	84.21%	81.82%

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6.7.4 Using appropriate measuring tools, measure work piece.	100.00%	100.00%	100.00%
14) Performance Standard 6.14: Counter bore holes with lathes	66.67%	42.11%	18.18%
6.14.4 Counter bore a hole in a work piece.	66.67%	42.11%	18.18%
15) Performance Standard 6.15: Bores holes with lathes	83.33%	73.68%	81.82%
6.15.2 Select the correct tool and tool holder for boring holes.	83.33%	73.68%	81.82%
17) Performance Standard 6.17: Cut external threads with lathes	77.78%	68.42%	75.76%
6.17.1 Describe the procedures for cutting external threads.	83.33%	84.21%	81.82%
6.17.8 Determine compound off-set angle (right or left hand threads).	66.67%	36.84%	63.64%
19) Performance Standard 6.19: Cut internal threads with lathes	66.67%	63.16%	66.67%
6.19.1 Describe the procedures for cutting internal threads.	58.33%	68.42%	54.55%
6.19.2 Explain the use of appropriate inspection gages.	83.33%	89.47%	90.91%
6.19.8 Determine compound off-set angle (right or left hand threads).	58.33%	31.58%	54.55%
7) CONTENT STANDARD 7.0: SETUP AND OPERATE MILLING MACHINES	74.12%	75.07%	78.47%
1) Performance Standard 7.1: Comply with safe and efficient work practices	25.00%	42.11%	72.73%
7.1.4 Operate lab equipment according to safety guidelines.	25.00%	42.11%	72.73%
2) Performance Standard 7.2: Identify the parts of the horizontal and vertical milling machine and know their function	88.89%	89.47%	75.76%
7.2.1 Describe the function of major parts.	88.89%	89.47%	75.76%
4) Performance Standard 7.4: True up the head and align milling machine fixtures	66.67%	71.93%	77.27%
7.4.1 Explain the safety precautions/procedures in alignment of heads.	100.00%	100.00%	90.91%
7.4.5 Align a head of a milling machine.	50.00%	57.89%	63.64%
5) Performance Standard 7.5: Select and set feeds and speeds for milling work	81.25%	68.42%	80.00%
7.5.1 List the correct cutting speed and feed for various materials.	87.50%	76.32%	68.18%
7.5.2 Set correct feeds and speeds on a milling machine for various materials.	75.00%	60.53%	87.88%
6) Performance Standard 7.6: Square up work pieces with a table vise	58.33%	59.65%	78.79%
7.6.2 Describe the procedures for setting-up and machining a work piece parallel and square.	58.33%	59.65%	78.79%
7) Performance Standard 7.7: Perform end milling	77.08%	89.47%	88.64%
7.7.2 Describe the procedures for setting up and end milling a flat surface.	86.11%	89.47%	87.88%
7.7.3 Identify the correct cutting fluids for milling.	50.00%	89.47%	90.91%
8) Performance Standard 7.8: Perform fly-cutting operations	61.11%	66.67%	63.64%
7.8.2 Explain the purpose of fly-cutters.	75.00%	89.47%	72.73%
7.8.3 Calculate speeds, feeds, and determine depth of cut for fly-cutting surfaces.	58.33%	52.63%	54.55%
7.8.4 Describe the procedures for fly-cutting surfaces.	50.00%	57.89%	63.64%
9) Performance Standard 7.9: Drill holes with a milling machine	68.75%	67.11%	70.45%

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7.9.1 Describe the procedures for using milling machine dials for accurate table positioning.	100.00%	89.47%	100.00%
7.9.4 Calculate the correct speed and feed.	37.50%	47.37%	45.45%
7.9.5 Drill holes in a work piece to specified tolerances using a milling machine.	100.00%	84.21%	90.91%
10) Performance Standard 7.10: Perform reaming operations	75.00%	84.21%	81.82%
7.10.1 Explain the uses of centerdrills, drills, and reamers.	83.33%	100.00%	100.00%
7.10.2 Calculate proper speeds and feeds for centerdrilling, drilling, and reaming operations.	83.33%	84.21%	100.00%
7.10.3 Describe the procedures for centerdrilling, drilling, and reaming on a milling machine.	58.33%	68.42%	45.45%
12) Performance Standard 7.12: Bore holes with milling machines	83.33%	87.72%	84.85%
7.12.1 Explain the procedures for accurately adjusting a boring head.	87.50%	86.84%	81.82%
7.12.2 Calculate speeds and feeds for boring operations.	75.00%	89.47%	90.91%
18) Performance Standard 7.18: Use an edge finder and wiggler	83.33%	88.16%	90.91%
7.18.1 Explain the correct care and use of an edge finder or wiggler.	95.83%	89.47%	86.36%
7.18.2 Describe the procedures for touching off with an edge finder and a wiggler.	75.00%	89.47%	100.00%
7.18.3 Locate the center of a work piece after locating it with a wiggler or edge finder.	66.67%	84.21%	90.91%
19) Performance Standard 7.19: Position a table	83.33%	59.65%	66.67%
7.19.3 Describe the procedures for keeping backlash out of lead screws.	79.17%	57.89%	68.18%
7.19.5 Describe the procedures for drilling equally spaced holes.	91.67%	63.16%	63.64%
8) CONTENT STANDARD 8.0: SETUP AND OPERATE DRILL PRESSES	66.67%	53.95%	63.64%
1) Performance Standard 8.1: Comply with safe and efficient work practices	58.33%	63.16%	72.73%
8.1.1 Demonstrate knowledge of safety by completing a written safety test.	58.33%	63.16%	72.73%
3) Performance Standard 8.3: Center drill, drill and ream a hole in a work piece	69.44%	50.88%	60.61%
8.3.1 Describe the procedures for center drilling and drilling holes.	62.50%	50.00%	59.09%
8.3.2 Describe the procedures for reaming holes.	83.33%	52.63%	63.64%